

REMARKS

Claims 1-46 are pending in the present application. Claims 24-46 have been withdrawn from consideration. By virtue of this response, claims 1 and 11 have been amended. Support for the amendment to claims can be found, for instance, in the original specification on page 25, in the paragraph beginning with line 24. Claims 2, 5, 7, 13, 14, 17 and 21 have been amended for purposes of clarity. Accordingly, claims 1-23 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter has been added.

Rejections under 35 USC § 112

Claims 2, 5, 7, 13, 17 and 21 are rejected under 35 USC § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action states that it is unclear what the term “the same” is referring to in these claims. Although Applicants respectfully disagree, the claims have been amended to expedite prosecution. These claims now refer to “said Schottky diode” instead of “the same.” Accordingly, Applicants respectfully request that the rejection be withdrawn.

The Office Action also rejects claims 13, 14 and 17 as lacking antecedent basis for the limitation for “said second electrode.” Applicants have accordingly amended these claims to recite “a second electrode.” Accordingly, Applicants respectfully request that the rejection be withdrawn.

Rejections under 35 USC § 102

Claim 1 is rejected under 35 USC § 102(b) as allegedly being anticipated by Gallagher et al. (U.S. Patent 5,640,343). Claim 11 is rejected for the same reasons.

Claims 1 and 11, however, are not anticipated by Gallagher. Claims 1 and 11, as now pending, require that the resistance value of the variable resistive element is varied by applying a voltage to its both ends. Gallagher uses MTJ (magnetic tunnel junction) which is well-known as a

“variable resistive element” among MRAMs, and does not use a resistive material such as a “perovskite type crystalline structure” which may be used as a “variable resistive element” in the present invention. The resistance of the MTJ in Gallagher, however, is changed by switching the direction of magnetization of a FMS layer. See U.S. Patent No. 5,640,343 at column 6, lines 18-23. The resistance of the MTJ in Gallagher is not varied by the application of voltage to both its ends, as claims 1 and 11 require. Accordingly, claims 1 and 11 are not anticipated by Gallagher, and Applicants respectfully request that the rejection be withdrawn.

Rejections under 35 USC § 103

Claims 2-10 and 12-23 are rejected under 35 USC § 103(a) as allegedly being unpatentable over Gallagher in view of Yagishita et al. (U.S. Publication 2002/0179980).

As discussed above, however, these claims require a variable resistive element, the resistance of which varies by applying a voltage to its both ends. Gallagher does **not** disclose such a resistive element.

Neither does Yagishita disclose such an element. Yagishita discloses a FET, and does not disclose a resistive element at all. The Office Action cites reference number 117 in Yagishita as a variable resistive element with a “perovskite type crystalline structure.” But in Yagishita, the reference numeral 117 is directed to an aluminum wiring instead of a material having perovskite type crystalline structure. (Please refer to paragraphs 55 and 72 of Yagishita, disclosing an upper layer metal wiring (e.g. Al wiring) 117). Yagishita therefore teaches nothing with respect to the resistive element present in Applicants’ claims subject matter. Accordingly, Yagishita fails to provide any subject matter missing from Gallagher and thus fails to render such claimed subject matter obvious.

Applicants respectfully request that the rejections of claims 2-10 and 12-23 be withdrawn.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no.

544782000300. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: May 22, 2006

Respectfully submitted,

By 

Ashita A. Doshi

Registration No.: 57,327

MORRISON & FOERSTER LLP

755 Page Mill Road

Palo Alto, California 94304-1018

(650)-813-5816